

INTRODUCTION

This guide is intended to help small businesses comply with the Respiratory Protection standard. It provides guidance only, and does not alter or determine compliance responsibilities, which are set forth in Occupational Safety and Health Administration (OSHA) standards and the Occupational Safety and Health Act. The guide does not replace the official Respiratory Protection standard (29 CFR 1910.134 & 29 CFR 1926.103). The reader must refer to the standard to ensure compliance.

The Respiratory Protection standard specifies only the minimum requirements for an effective respiratory protection program. You are encouraged to exceed these minimum criteria if doing so enhances the safety and health of your employees.

Who should read this guide?

You should read this guide if it is likely that you will need to establish and implement a respiratory protection program for your business. Under the Respiratory Protection standard, OSHA may require you to establish a respiratory protection program when exposure to an airborne contaminant or to low oxygen levels can cause illness or injury to a worker's health, and when these health effects can be prevented by the appropriate selection and use of a respirator.

What is a respirator?

Respirators are devices that protect workers from inhaling harmful substances. These substances can be in the form of airborne vapors, gases, dust, fogs, fumes, mists, smokes, or sprays. Some respirators also ensure that workers do not breathe air that contains dangerously low levels of oxygen. There are two major types of respirators:

1. Air-purifying respirators, which remove contaminants from the air.
2. Atmosphere-supplying respirators, which provide clean air from an uncontaminated source, typically bottled or compressed air.

Respirators provide protection from respiratory hazards only when they are used properly.

What is a respiratory protection program?

A respiratory protection program is a cohesive collection of worksite-specific procedures and policies that addresses all respiratory protection elements required by the standard. For example, a respiratory protection program must contain specific procedures describing how respirators will be selected, fitted, used, maintained and inspected in a particular workplace.

When am I required to establish a respiratory protection program?

Generally, whenever you or OSHA requires your employees to wear respirators. For example, you may need to establish a respiratory protection program:

- If your employees work in situations where the level of oxygen is insufficient, or potentially insufficient.
- If your employees are potentially exposed to harmful levels of hazardous gases or vapors.
- If your employees are exposed to other potential respiratory hazards, such as dust, mists, fumes, sprays, and other airborne particles.

You need to supply workers with respirators when all preferred methods of protecting them from breathing contaminated air have been determined to be insufficient to reduce the contamination to nonhazardous levels. You must consider the potential for emergencies when making this determination. These preferred methods include:

- Engineering controls, such as ventilation.
- Substituting non-hazardous materials for the materials that pose respiratory hazards.
- Administrative controls, such as scheduling major maintenance for weekends or times when few workers are present.

What is OSHA's Respiratory Protection standard?

The Respiratory Protection standard requires employers to establish and maintain a respiratory protection program to protect their respirator-wearing workers. OSHA has issued a revised standard, which became effective on October 5, 1998. It updates and replaces a standard that OSHA adopted in 1971. The revised standard incorporates new scientific principles and technologies that have emerged since 1971. Because of advances in technology, many areas covered by the previous standard had become outdated.

The new standard is intended to:

- Enhance the protection of worker health.
- Promote more effective use of respirators.
- Make it easier for you to comply with its provisions.
- Make it easier to understand the policy and procedures you must follow when implementing a respiratory protection program.

How does the new standard differ from the old standard that it replaces?

The new standard:

- Contains new provisions that recognize the needs of small businesses.
- Requires written respiratory protection programs to include work-site specific procedures.
- Requires that a qualified "program administrator" oversee the respiratory protection program.
- Provides:
 - Definitions that will eliminate confusion about terminology and how these terms apply to respirators and their use.
- Criteria for selecting respirators.
- Clear language on the requirement for medical examinations of workers and the use of medical questionnaires.
- Requires employers to perform a hazard determination to identify respiratory hazards and work conditions.
 - Requires annual fit testing for all tight-fitting respirators, and it includes protocols for fit testing.
- Addresses the use of respirators in situations that OSHA characterizes as Immediately Dangerous to Life or Health (IDLH).

How does the new Respiratory Protection standard recognize the needs of small businesses?

Among other things, the revised Respiratory Protection standard:

- Allows the use of a medical questionnaire to screen for employee health conditions which could effect their ability to use a respirator. The questionnaire must be administered by a physician or other licensed health care professional.

- Allows medical evaluations to be conducted either by a physician or by another licensed health care professional.
- Requires medical evaluations after the initial evaluation to be conducted only when specific conditions indicate a need for a reevaluation.
- Minimizes the amount of paperwork required in connection with medical evaluations.
- Establishes flexible requirements for cleaning and disinfecting respirators issued to individual employees "as necessary to be maintained in a sanitary condition."
- Allows tags be used to document respirator inspections rather than written records.
- Allows you to obtain a certificate of breathing gas analysis from the supplier instead of requiring you to conduct your own gas analysis.

A. Scope and Application

1.This new standard applies to all respirator usage in General Industry, Shipyards, Marine Terminals, Longshoring and Construction workplaces. It does not apply to agricultural operations or to occupational exposure to M. tuberculosis. Respiratory protection against tuberculosis will continue to be enforced under the old 1910.134, which has been redesignated 1910.139.

2.The standard covers respirator use where respirators are being worn to protect employees from exposure to air contaminants above an exposure limit or are otherwise necessary to protect employee health, where respirators are otherwise required to be worn by the employer, and where respirators are voluntarily worn by employees for comfort or other reasons.

Respiratory Protection Program-1910.134(c)(1):

A written respiratory protection program is required when necessary to protect the health of the employee from workplace contaminants or when the employer requires the use of respirators. A limited written program is also required when respirators (other than filtering facepieces) are being voluntarily worn by employees. The program must include workplace specific procedures and contain all applicable program elements. Where respirators are required, respirators (and their associated requirements such as fit-testing and maintenance), training and medical evaluations must be provided at no cost to the employee. It is the intent of the standard that the employer would not be required to incur any costs associated with voluntary use of filtering facepieces other than providing a copy of Appendix D to each user. If employers allow the voluntary use of respirators other than filtering facepieces, the costs associated with ensuring the respirator itself does not create a hazard, such as medical evaluations and maintenance must be provided at no cost to the employee.

These provisions are to be considered when evaluating a written program:

- a.(i) procedures for selecting respirators
- b.(ii) medical evaluations for users,
- c.(iii) fit-testing procedures for tight-fitting respirators,
- d.(iv) procedures for proper use during routine and emergency situations,
- e.(v) procedures for cleaning, storing, disinfecting, etc.,
- f.(vi) procedures to ensure adequate air quality and flow for atmosphere supplying respirators
- g.(vii) training on respiratory hazards,
- h.(viii) training on proper use, donning and removing the respirator etc.,
- i.(ix) procedures for regularly evaluating the effectiveness of the program.

Voluntary Use: Normally, respirators that are voluntarily used by employees will be filtering facepieces (dust masks). NIOSH-approved respirators are strongly recommended, but they are not required for voluntary use. This voluntary use of dust masks alone does not require the employer to have a written program. For filtering facepiece respirator use, the employer needs only ensure that dust masks are not dirty or contaminated, that their use does not interfere with the employee's ability to work safely, and that a copy of Appendix D is provided to each voluntary wearer.

Merely posting Appendix D is not considered adequate.

Use of elastomeric or supplied-air respirators, even when voluntary on the part of the employee, will require the employer to include all elements in a written program that will ensure use of these respirators does not create a hazard.

Program Administrator: A "respiratory protection program administrator" is required to oversee and evaluate the respirator program. This individual must be suitably trained and have the appropriate accountability and responsibility to manage the full respiratory protection program.

Companies with multiple worksites may have a program administrator at each worksite, as long as this person is qualified and retains the accountability and responsibility for the day-to-day operation of the specific program for that site. Alternatively, a company may opt to have one program administrator for several sites and/or one program for several similar sites as long as the program contains the necessary elements and addresses the hazards at those sites.

Selection of Respirators and Hazard Evaluation 1910.134(d):

The employer is required to select and provide an appropriate respirator (NIOSH certified) based on the respiratory hazard(s) present in the workplace. The employer must identify hazardous airborne contaminants that employees may inhale and make a reasonable estimate of employee exposures in determining the appropriate respirator for employees to use. Oxygen deficient atmospheres and those atmospheres that are not or cannot be estimated must be treated as IDLH environments. Where a contaminant is regulated by a substance-specific standard that requires monitoring, failure to monitor in accordance with the standard's terms would be cited under that standard. For other contaminants, although the most reliable and accurate method to determine exposure is to conduct personal air monitoring, it is not explicitly required by the respirator standard. Instead, other means can be used to estimate workplace exposures.

As a continuing practice, employers are required to identify hazards as a result of changes in the workplace such as a change in equipment, process, products, or control measures that could result in new exposures. Appropriate respirators should be provided as necessary.

Respirators required to be used in the workplace must be NIOSH-approved and appropriate for the hazard. Employers must follow respirator manufacturer's recommendations.

Medical Evaluation - 1910.134(e):

Employers must provide a medical evaluation to determine each employee's fitness to wear

a respirator. The evaluation must be provided before the initial fit-testing and before the respirator is used for the first time. Medical evaluations consist of the administration of a medical questionnaire, which is found in the mandatory Appendix C of the standard, or provision of a physical examination that elicits the same information as the questionnaire for the employee. An employer, who opts to provide physical examinations to his or her employees, need not also administer the medical questionnaire. These evaluations are required for all respirator users except for employees who voluntarily use dusts masks and for those whose only respirator would be the use of escape-only respirators. SCBA's are not considered escape-only respirators. Employees who refuse to be medically evaluated cannot be assigned to work in areas where they are required to wear a respirator.

Where employers use a transient workforce, (e.g., temporary or construction workers), the employer may accept the written medical recommendation of the employee's ability to use a respirator as determined by their previous employer's PLCHP only if the work conditions and type and weight of the respirator remains the same and appropriate for use at their new work site. In this situation, the employer must obtain from the previous employer a copy of the PLCHPs written recommendation.

Section (e)(2)(ii) requires the employer to obtain the information required in the questionnaire or provide the initial examination prior to performing fit testing of employees and prior to requiring the employee to wear the respirator in the workplace. When using the questionnaire, the employer may not change the wording of questions in Part A , if the form is being used as the sole means to evaluate employees. The Physician or other Licensed Health Care Professional (PLHCP) may add questions to the questionnaire that

could assist in determining whether the employee can perform the work while wearing respiratory protection.

In order to maintain strict confidentiality of the information obtained in the questionnaire, the employer's role is limited to

distributing the blank questionnaire to the employee for him or her to fill out, or providing it to the PLHCP, who will administer the questionnaire to the employee. If the employer provides the questionnaire to the employee, an addressed and postage-paid envelope should also be provided for the employee to mail it to the PLHCP. The questionnaire and findings may also be maintained by the employer's medical office, if the health office is administratively separate from the employer's central administration offices.

If the employer does not have or chooses not to use an in-house medical staff, arrangements must be made for a physician or other licensed healthcare professional (PLHCP) to perform the medical evaluations. **The PLHCP may be a physician, a registered nurse, a nurse practitioner, a physician assistant, or other licensed health care professional acting within the scope of his or her state license, registration, or certification.** The PLCHP must be legally permitted by his or her professional license to conduct the type of medical evaluation required by the respirator standard. Scope of practice for non-physician PLCHPs will vary from state to state.

All PLCHPs who participate in any aspect of the medical evaluation must be practicing within the scope of their license. For assistance in determining which state licensing board or agency to contact to determine a PLCHP's legally permitted scope of practice.

The employer must ensure that the questionnaire is administered in such a manner that employees can understand the content and the confidentiality of the record is maintained. Where the employee cannot understand English, the employer must have the questionnaire translated into the employee's language either through a translator or a translated written copy. The questionnaire has been translated into Spanish and is available on OSHA's homepage (www.osha.gov) in the Respirator Q & A Document. In cases where the employee cannot read, the employee can request someone other than the employer to orally

read them the questionnaire or the PLHCP may obtain through an interview or examination the same information requested on the medical questionnaire.

Fit Testing-1910.134(f): Fit testing is required for all employees using negative or positive pressure tight-fitting respirators, where such respirators are required by OSHA or where the employer requires the use of such a respirator. A fit test is not required for voluntary users or for escape-only respirators.

The fit test must be performed before the respirator is used in the workplace. It must be repeated at least annually and whenever a different respirator facepiece is used or a change in the employee's physical condition could affect respirator fit. If the respirator subsequently becomes unacceptable (i.e., causes irritation or pain) to the employee, the employee must be given the opportunity to select a different respirator facepiece and be retested.

Where employees move from job to job within the year (e.g., temporary or construction workers), their fit test need not be repeated, if the employer obtains a copy of the original fit test record and the same respirator make, model and size is available and appropriate for use at their new work site.

Use of Respirators - 1910.134(g):

Employers must establish and implement procedures for the proper use of respirators. These procedures include prohibiting conditions that may result in facepiece leakage, preventing employees from removing respirators in hazardous environments, ensuring continued respirator operation throughout the shift, and establishing procedures for the use of respirators in IDLH atmospheres.

1. Facepiece Seal Protection (g)(1):

a. Any condition that interferes with the seal of the respirator such as: when employees' facial hair comes between the sealing surface of the facepiece and the face or interferes with valve function; (g)(1)(i)(B) when any other condition except for those listed in (g)(1)(ii) interferes with the face-to-facepiece seal; (g)(1)(ii) when the employee is wearing equipment (e.g., glasses, goggles, helmets, etc.) that affects the face-to-facepiece seal, but was not worn during fit testing; (g)(1)(iii) if user seal checking is not being performed or the employer has not demonstrated that the procedures used are those listed in or as effective as those in (Appendix B-1).

2. Continuing Respirator Effectiveness (g)(2):

The employer is required by :

(c)(1)(ix), to address in its written program the type of regular surveillance of the workplace necessary to evaluate the effectiveness of the respirator program. The surveillance procedures may include continuous or periodic monitoring, on-site observations, and notation of problems. The intensity of the surveillance should be tailored to the hazards present in the workplace. Highly hazardous substances that pose acute respiratory hazards merit a higher degree of surveillance.

(g)(2)(ii) requires that employers ensure that employees leave the respirator-use area to correct certain problems associated with respirator use, including the detection of contaminant breakthrough, and to replace the respirator or its filters or cartridges.

(g)(2)(iii) is designed to prevent employees from reentering a workplace after leaving because of a significant respirator failure without first assuring the proper functioning of the respirator.

3. Procedures for IDLH Atmospheres (g)(3):

The employer must be prepared for emergency rescue or respirator failure whenever employee(s) are working inside of an IDLH atmosphere. At least one person must be on standby outside the IDLH atmosphere and maintain communication with the person inside at all times. The standby person(s) must be trained and equipped to provide an effective emergency rescue. Except in emergency situations, environments containing IDLH atmospheres are frequently well enough characterized and controlled that a single standby person can monitor the status of multiple entrants. The need for multiple standbys should be evaluated in context with the ability of the standby personnel to meet all their standby

duties, including their ability to monitor the worker(s) in the area and their ability to initiate effective rescue procedures. Planning is critical for effective response to emergency situations through the development of specific emergency procedures. These procedures should address how the employer will be notified when standby person(s) outside of the IDLH atmosphere enter the IDLH atmosphere to provide emergency rescue and what actions will be taken or assistance provided by the employer. Emergency procedures must be developed and included in the employer's written respirator program.

Paragraph (g)(3) does not apply to IDLH atmospheres in a permit-required confined space (PRCS) or to environments in which there is an uncontrolled release of a hazardous substance. IDLH atmospheres in a PRCS are specifically addressed in the PRCS standard 1910.146, and environments in which there is an emergency release of a hazardous substance are addressed in 1910.120.

4. Procedures for Interior Structural Firefighting 1910.134(g)(4):

This section applies to private sector workers engaged in firefighting, including those working in industrial fire brigades and private incorporated fire companies, and to Federal employees under Section 19 of the Act. These or equivalent provisions apply to State and local government firefighters.

The provision is limited to workers performing an interior attack on an interior structural fire. In Subpart L (1910.155), OSHA has defined **"interior structural fire fighting" to mean: "the physical activity of fire suppression, rescue or both, inside of buildings or enclosed structures which are beyond the incipient stage."** incipient stage fire fighting involves the control or extinguishment of a fire in the initial or beginning stage, using portable fire extinguishers or small hose lines without the need for personal protective equipment. It is the incident commander's responsibility, based on training and experience, to judge whether a fire is an interior structural fire, and how it will be attacked.

There must always be at least two firefighters stationed outside during interior structural

firefighting, and they must be trained, equipped and prepared to enter if necessary to rescue the firefighters inside. However, the incident commander has the responsibility and flexibility to determine when more than two outside firefighters are necessary given the circumstances of the fire. The two-in/two-out rule does not require an arithmetic progression for every firefighter inside, i.e. the rule should not be interpreted as 4-in-4-out, 8-in-8-out, etc.

It is important to recognize that life-saving activities in interior structural fire fighting are not precluded by the standard. There is an explicit exemption in the standard that if life is in jeopardy, firefighters have the discretion to perform the rescue, and the "two-in/two-out"

requirement is waived. There is no violation of the standard under such life-saving rescue circumstances.

The two-in/two-out provision is not intended as a staffing requirement. It does not require fire departments to hire additional firefighters; it does not require four-person fire companies; it does not require four persons on a fire truck. Most fire departments have more than four firefighters and can assemble the numbers required on the scene by waiting for others to arrive. During this time the fire may be attacked only from the outside, sizing-up operations may occur, and emergency rescue necessary to save lives may take place as discussed above. The "two-in/two-out" rule is a worker safety practice requirement, not a staffing requirement.

The standard allows one of the standby firefighters to have other duties such as serving as the incident commander, safety officer, or operator of fire apparatus. However, one of the outside firefighters must actively monitor the status of the inside firefighters and may not be assigned additional duties. The second outside firefighter may be involved in a wide variety of activities. Both of the outside personnel must be able to provide support and assistance to the two interior firefighters; any assignment of additional duties for one of the outside firefighters must be weighed against the potential for interference with this requirement. Proper assignment of firefighting activities at an interior structural fire must be determined on a case-by-case basis and is dependent on the existing firefighting situation. Compliance will always depend on consideration of all the worksite variables and conditions, and the judgement of the incident commander is critical in meeting this performance standard.

Maintenance and Care of Respirators 1910.134(h)(1):

Respirators must be cleaned and disinfected as often as necessary to keep them in a sanitary condition. They must be properly stored to prevent damage and contamination, inspected regularly and repaired as necessary.

The employer must ensure that respirators are inspected before each use and during cleaning.

A minimally acceptable inspection procedure for **ALL** respirators includes a check of respirator function, tightness of connections and the condition of the various parts, including but not limited to, the face piece, head straps, valves, connecting tube, and cartridges, canisters, or filters, and a check of the respirator's elastomer parts for pliability and signs of deterioration.

SCBA's also require an inspection of the air and oxygen cylinders to assure that the cylinder pressure is maintained at 90% of the manufacturer's recommended pressure level and that the regulator and low pressure warning devices function properly. To assure that both the regulator and low pressure warning devices function properly the warning device must be activated and heard by the person performing the inspection. Respirators must be properly stored to protect them against physical damage, contamination, excessive moisture, extreme temperatures, sunlight, and damaging chemicals. Emergency use respirators must be stored in compartments OR in covers, both of which must be clearly marked as containing the emergency respirators.

Respirators That Are Available for Emergency Use: An inspection must be conducted monthly for all emergency use respirators. The employer must certify in writing that an inspection was performed. The certification must include the name (or signature) of the person who made the inspection, the findings of the inspection, any remedial action, and a serial number or other means of identifying the inspected respirator. The respirator must also be checked before and after each use.

a. Emergency escape-only respirators carried by employees must be inspected before being taken into the workplace for potential use.

Repairs: Defective respirators must be removed from service. A respirator is defective if one or more of its components is missing, damaged, or visibly deteriorated. An "appropriately trained" person must be responsible for performing repairs or adjustments to respirators.

Breathing Air Quality and Use 1910.134 (i):

Compressed breathing air must meet at least the requirements for Grade D breathing air. The ANSI/CGA G.7-1 - 1989 specifies the contents of Grade D breathing air as: oxygen (volume/volume) of 19.5 to 23.5 %; hydrocarbon (condensed) of 5 mg/m³ of air or less; carbon monoxide of 10 ppm or less; carbon dioxide of 1,000 ppm or less; and the lack of a noticeable odor.

If compressors are used to supply breathing air, note the location of the compressor intake and ensure it is located in an area uncontaminated by either combustion exhaust gases produced by vehicles or the compressor itself (if applicable), or by other exhaust gases ventilated from plant processes. A tag containing the signature of the person authorized by the employer to change the in-line sorbent beds and filters and the date of the latest change must be maintained at the compressor.

If cylinders are used they must be marked with a NIOSH approval label. Cylinders of purchased breathing air must have a certificate of analysis from the supplier that the breathing air meets the required Grade D air and moisture content.

If compressed or liquid oxygen is used, it must meet the specifications for breathing oxygen outlined by the United States Pharmacopoeia (USP). Compressed oxygen must not be used for any respirators that previously used compressed air.

All breathing air couplings must be incompatible with those of non-respirable air or other gases used at the site to prevent inadvertent servicing of air line respirators with non-respirable gases or oxygen.

Identification of Filters, Cartridges, and Canisters

1910.134(j):

The employer must ensure that all canisters and filters are properly labeled and color coded with the NIOSH approval label and that the label is not removed, obscured, or defaced while in service. This requirement enables the employee using the respirator to check and confirm that the respirator has the appropriate filters before the respirator is used and also allows fellow employees, supervisors, and the respirator program administrator to readily determine that the employee is using the appropriate filters.

Training and Information 1910.134 (k):

The employer is required to provide effective training to employees who wear respirators. Training must be provided prior to an employee's use of a respirator in the workplace and must be comprehensive and understandable. Training must recur annually, and more often if retraining appears necessary to ensure safe use. The employer must ensure that each employee can demonstrate a knowledge of all items in (k)(1)(i) thru (vii). Pre-testing may be used as a training aid to determine extent of retraining required.

Program Evaluation 1910.134(l):

The employer must conduct evaluations of the workplace to ensure the written respiratory protection program is properly implemented. The employer must observe and consult employees to determine if they have any problems with the program and ensure that the respirators are used properly.

Recordkeeping - 1910.134(m):

For every employee required to wear a respirator, the employer must establish and retain medical evaluations and fit-testing records. Medical evaluation records must also be retained for employees who wear elastomeric facepiece respirators. An employee's medical evaluation records must be voluntarily made available to the employee and to OSHA in accordance with 1910.1020. The employer must also make an employee's fit-testing records available to that employee and to OSHA. The standard does not intend for the employer to make an employee's medical or fit-testing records available to any other individual unless that individual is the employee's "designated representative" as defined in 1910.1020(c)(3).

Dates 1910.134 (n):

The final standard became effective April 8, 1998. By September 8, 1998, the employer must have evaluated the workplace

to determine if respirator use is required. Compliance with all provisions is required no later than October 5, 1998.

Appendices: All appendices are mandatory.

- 1. Appendix A details fit testing protocols [see paragraph (f)(5)].
- 2. Appendix B-1 details User Seal Check Procedures [see paragraph g(1)(iii)].
- 3. Appendix B-2 details Respirator Cleaning Procedures [see paragraph (h)(1)].
- 4. Appendix C is the OSHA Respirator Medical Evaluation Questionnaire [see paragraph (e)(2)].
- 5. Appendix D is Information for Employees Using Respirators When Not Required Under the Standard. This appendix must be provided to all employees who voluntarily use respirators. [see paragraph (c)(2), (k)(6)]

Sample Respiratory Protection Program

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(Note)

This Sample Respiratory Protection Program is for demonstration purposes only.

XYZ Seating is not intended to represent an actual company.

XYZ is a hypothetical company that has chosen to interpret certain provisions of 29 CFR 1910.134 in ways that could be different from the way another company might choose to implement it.

1.0 Purpose

XYZ Seating has determined that employees in the Prep, Coating, Assembly, and Maintenance departments are exposed to respiratory hazards during routine operations. These hazards include wood dust, particulates, and vapors, and in some cases represent Immediately Dangerous to Life or Health (IDLH) conditions. The purpose of this program is to ensure that all XYZ Seating employees are protected from exposure to these respiratory hazards.

Engineering controls, such as ventilation and substitution of less toxic materials, are the first line of defense at XYZ Seating; however, engineering controls have not always been feasible for some of our operations, or have not always completely controlled the identified hazards. In these situations, respirators and other protective equipment must be used. Respirators are also needed to protect employees' health during emergencies. The work processes requiring respirator use at XYZ Seating are outlined in Table 1 in the Scope and Application section of this program.

In addition, some employees have expressed a desire to wear respirators during certain operations that do not require respiratory protection. As a general policy XYZ Seating will review each of these requests on a case-by-case basis. If the use of respiratory protection in a specific case will not jeopardize the health or safety of the worker(s), XYZ Seating will provide respirators for voluntary use. As outlined in the Scope and Application section of this program, voluntary respirator use is subject to certain requirements of this program.

2.0 Scope and Application

This program applies to all employees who are required to wear respirators during normal work operations, and during some non-routine or emergency operations such as a spill of a hazardous substance. This includes employees in the Prep, Coating (Spray Booth), Assembly, and Maintenance departments. All employees working in these areas and engaged in certain processes or tasks (as outlined in the table below) must be enrolled in the company's respiratory protection program.

In addition, any employee who voluntarily wears a respirator when a respirator is not required (i.e., in certain maintenance and coating operations) is subject to the medical evaluation, cleaning, maintenance, and storage elements of this program, and must be provided with certain information specified in this section of the program. Employees participating in the respiratory protection program do so at no cost to them. The expense associated with training, medical evaluations and respiratory protection equipment will be borne by the company.

TABLE 1:

VOLUNTARY AND REQUIRED RESPIRATOR USE AT XYZ SEATING

Respirator Department/Process

Filtering facepiece (dust mask) Voluntary use for warehouse workers

Half-facepiece APR or

PAPR with P100 filter Prep and Assembly

Voluntary use for maintenance workers when cleaning spray booth walls or changing spray booth filter

SAR, pressure demand, with auxiliary

SCBA Maintenance - dip coat tank cleaning

Continuous flow SAR with hood Spray booth operations

Prep (cleaning)*

Half-facepiece APR with organic vapor

cartridge

Voluntary use for Dip Coat Tenders, Spray Booth Operators (gun cleaning), and Maintenance workers (loading coating agents into supply systems)

Escape SCBA Dip Coat, Coatings Storage Area, Spray

Booth Cleaning Area

* until ventilation is installed.

3.0 Responsibilities

Program Administrator

The Program Administrator is responsible for administering the respiratory protection program.

Duties of the program administrator include:

- Identifying work areas, processes or tasks that require workers to wear respirators, and evaluating hazards.

* Selection of respiratory protection options.

* Monitoring respirator use to ensure that respirators are used in accordance with their certifications.

* Arranging for and/or conducting training.

* Ensuring proper storage and maintenance of respiratory protection equipment.

- Conducting qualitative fit testing with Bitrex.
- Administering the medical surveillance program.

- Maintaining records required by the program.
- Evaluating the program.
- Updating written program, as needed.

The Program Administrator for Company XYZ Seating is _____.

Supervisors

Supervisors are responsible for ensuring that the respiratory protection program is implemented in their particular areas. In addition to being knowledgeable about the program requirements for their own protection, supervisors must also ensure that the program is understood and followed by the employees under their charge. Duties of the supervisor include:

- Ensuring that employees under their supervision (including new hires) have received appropriate training, fit testing, and annual medical evaluation.
- Ensuring the availability of appropriate respirators and accessories.
- Being aware of tasks requiring the use of respiratory protection.
- Enforcing the proper use of respiratory protection when necessary.
- Ensuring that respirators are properly cleaned, maintained, and stored according to the respiratory protection plan.
- Ensuring that respirators fit well and do not cause discomfort.
- Continually monitoring work areas and operations to identify respiratory hazards.
- Coordinating with the Program Administrator on how to address respiratory hazards or other concerns regarding the program.

Employees

Each employee has the responsibility to wear his or her respirator when and where required and in the manner in which they were trained. Employees must also:

- Care for and maintain their respirators as instructed, and store them in a clean sanitary location.
- Inform their supervisor if the respirator no longer fits well, and request a new one that fits properly.
- Inform their supervisor or the Program Administrator of any respiratory hazards that they feel are not adequately addressed in the workplace and of any other concerns that they have regarding the program.

4.0 Program Elements

Selection Procedures

The Program Administrator will select respirators to be used on site, based on the hazards to which workers are exposed and in accordance with all OSHA standards. The Program Administrator will conduct a hazard evaluation for each operation, process, or work area where airborne contaminants may be present in routine operations or during an emergency. The hazard evaluation will include:

- 1) Identification and development of a list of hazardous substances used in the workplace, by department, or work process.
- 2) Review of work processes to determine where potential exposures to these hazardous substances may occur. This review shall be conducted by surveying the workplace, reviewing process records, and talking with employees and supervisors.
- 3) Exposure monitoring to quantify potential hazardous exposures. Monitoring will be contracted out. XYZ Seating currently has a contract with ABC Industrial Hygiene Services to provide monitoring when needed.

The results of the current hazard evaluation are the following:

(Table 3 at the end of this program contains the sampling data that this section was based on.)

Prep-sanding: Ventilation controls on some sanders are in place, but employees continue to be exposed to respirable wood dust at 2.5 - 7.0 mg/m³ (8 hour time-weighted-average, or TWA). Half-facepiece APRs with P100 filters and goggles are required for employees sanding wood pieces. PAPRs will be available for employees who are unable to wear an APR.

Prep-cleaning: Average methylene chloride exposures measured at 70 ppm based on 8 hr. TWA exposure results for workers cleaning/stripping furniture pieces. Ventilation controls are planned, but will not be implemented until designs are completed and a contract has been let for installation of the controls. In the meantime, employees must wear supplied air hoods with continuous air flow, as required by the Methylene Chloride standard 1910.1052.

Coating-spray booth: XYZ Seating has decided to take a conservative approach and require all employees to wear supplied air respirators when working inside the spray booth. Based on exposure data in published reports on the same type of spray booth operations, the Program Administrator has determined that an SAR in the continuous flow mode will provide sufficient protection. Spray booth employees may opt to wear half-facepiece APRs with organic vapor cartridges when cleaning spray guns.

Coating-dip coat, and drying: Exposures are kept within PELs by ventilation, and employees generally enter the dip coat area for short time periods (up to one hour). Vapors could leak into the dip coat and drying areas if the ventilation system is not running at peak efficiency. Odors in this area are often unpleasant even at the levels maintained by the ventilation system. While XYZ Seating notes that respiratory protection is not required in this area, the company recognizes employee concern about breathing vapors and about having to work in an unpleasant environment. Accordingly, employees may voluntarily choose to wear a half-facepiece APR with organic vapor cartridges when working in this area.

Assembly: Ventilation controls on sanders are in place, but employees continue to be exposed to respirable wood dust at 2.5 - 6.0 mg/m³ (8 hour TWA); half-facepiece APRs with P100 filters and goggles are required for employees sanding wood pieces in the assembly department. PAPRs will be available for employees who are unable to wear an APR. The substitution for aqueous-based glues will eliminate exposures to formaldehyde, methylene chloride, and epoxy resins.

Maintenance: Because of potential IDLH conditions, employees cleaning dip coat tanks must wear a pressure demand SAR during the performance of this task.

Employees may voluntarily wear half-facepiece APRs with P100 cartridges when cleaning spray booth walls or changing booth filters and half-facepiece APRs with organic vapor cartridges when loading coating agents into supply systems. Although exposure monitoring has shown that exposures are kept within PELs during these procedures, XYZ Seating will provide respirators to workers who are concerned about potential exposures.

Updating the Hazard Assessment

The Program Administrator must revise and update the hazard assessment as needed (i.e., any time work process changes may potentially affect exposure). If an employee feels that respiratory protection is needed during a particular activity, he/she is to contact his or her supervisor or the Program Administrator. The Program Administrator will evaluate the potential hazard, arranging for outside assistance as necessary. The Program Administrator will then communicate the results of that assessment back to the employees. If it is determined that respiratory protection is necessary, all other elements of this program will be in effect for those tasks and this program will be updated accordingly.

NIOSH Certification

All respirators must be certified by the National Institute for Occupational Safety and Health (NIOSH) and shall be used in accordance with the terms of that certification. Also, all filters, cartridges, and canisters must be labeled with the appropriate NIOSH approval label. The label must not be removed or defaced while it is in use.

Voluntary Respirator Use

XYZ Seating will provide respirators at no charge to employees for voluntary use for the following work processes:

- Employees may wear half-facepiece APRs with organic vapor cartridges while working in the dip coat area.
- Warehouse workers may wear filtering facepieces.
- Spray Booth Operators may wear half-facepiece APRs with organic vapor cartridges while cleaning spray guns.
- Maintenance personnel may wear half-facepiece APRs with P100 cartridges while cleaning spray booth walls, and organic vapor cartridges while loading spray guns.

The Program Administrator will provide all employees who voluntarily choose to wear either of the above respirators with a copy of Appendix D of the standard. (Appendix D details the requirements for voluntary use of respirators by employees.) Employees choosing to wear a half facepiece APR must comply with the procedures for Medical Evaluation, Respirator Use, and Cleaning, Maintenance and Storage.

The Program Administrator shall authorize voluntary use of respiratory protective equipment as requested by all other workers on a case-by-case basis, depending on specific workplace conditions and the results of the medical evaluations.

Medical Evaluation

Employees who are either required to wear respirators, or who choose to wear an APR voluntarily, must pass a medical exam before being permitted to wear a respirator on the job. Employees are not permitted to wear respirators until a physician has determined that they are medically able to do so. Any employee refusing the medical evaluation will not be allowed to work in an area requiring respirator use.

A licensed physician at ABC medical clinic, where all company medical services are provided, will provide the medical evaluations. Medical evaluation procedures are as follows:

- The medical evaluation will be conducted using the questionnaire provided in Appendix C of the respiratory protection standard. The Program Administrator will provide a copy of this questionnaire to all employees requiring medical evaluations.

- To the extent feasible, the company will assist employees who are unable to read the questionnaire (by providing help in reading the questionnaire). When this is not possible, the employee will be sent directly to the physician for medical evaluation.
- All affected employees will be given a copy of the medical questionnaire to fill out, along with a stamped and addressed envelope for mailing the questionnaire to the company physician. Employees will be permitted to fill out the questionnaire on company time.
- Follow-up medical exams will be granted to employees as required by the standard, and/or as deemed necessary by the ABC medical clinic physician.
- All employees will be granted the opportunity to speak with the physician about their medical evaluation, if they so request.
- The Program Administrator has provided the ABC medical clinic physician with a copy of this program, a copy of the Respiratory Protection standard, the list of hazardous substances by work area, and for each employee requiring evaluation: his or her work area or job title, proposed respirator type and weight, length of time required to wear respirator, expected physical work load (light, moderate, or heavy), potential temperature and humidity extremes, and any additional protective clothing required.
- Any employee required for medical reasons to wear a positive pressure air purifying respirator will be provided with a powered air purifying respirator.
- After an employee has received clearance and begun to wear his or her respirator, additional medical evaluations will be provided under the following circumstances:
 - Employee reports signs and/or symptoms related to their ability to use a respirator, such as shortness of breath, dizziness, chest pains, or wheezing.
- The ABC medical clinic physician or supervisor informs the Program Administrator that the employee needs to be reevaluated;
- Information from this program, including observations made during fit testing and program evaluation, indicates a need for reevaluation;

- A change occurs in workplace conditions that may result in an increased physiological burden on the employee.

A list of XYZ Seating employees currently included in medical surveillance is provided in Table 2 of this program.

All examinations and questionnaires are to remain confidential between the employee and the physician.

Fit Testing

Fit testing is required for employees wearing half-facepiece APRs for exposure to wood dust in Prep and Assembly, and maintenance workers who wear a tight-fitting SAR for dip tank cleaning. Employees voluntarily wearing half-facepiece APRs may also be fit tested upon request.

Employees who are required to wear half-facepiece APRs will be fit tested:

- Prior to being allowed to wear any respirator with a tight fitting facepiece.
- Annually.
- When there are changes in the employee's physical condition that could affect respiratory fit (e.g., obvious change in body weight, facial scarring, etc.).

Employees will be fit tested with the make, model, and size of respirator that they will actually wear. Employees will be provided with several models and sizes of respirators so that they may find an optimal fit. Fit testing of PAPRs is to be conducted in the negative pressure mode.

The Program Administrator will conduct fit tests following the OSHA approved Bitrex Solution Aerosol QLFT Protocol in Appendix B (B4) of the Respiratory Protection standard.

The Program Administrator has determined that QNFT is not required for the respirators used under current conditions at XYZ Seating. If conditions affecting respirator use change, the Program Administrator will evaluate on a case-by-case basis whether QNFT is required.

Respirator Use

Respiratory protection is required for the following personnel:

TABLE 2: XYZ Seating Personnel in Respiratory Protection Program

Name	Department	Job Description/	Respirator
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Work Procedure

Joe Apple	Prep Operator	Half mask	APR P100 filter when sanding/SAR continuous flow hood for cleaning
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Ron Carey	Maintenance	Dip tank cleaning	SAR, pressure demand with auxiliary SCBA
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Lisa Jones	Coating Spray Booth Operator	SAR,	continuous
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flow hood

General Use Procedures:

- Employees will use their respirators under conditions specified by this program, and in accordance with the training they receive on the use of each particular model. In addition, the respirator shall not be used in a manner for which it is not certified by NIOSH or by its manufacturer.
- All employees shall conduct user seal checks each time that they wear their respirator. Employees shall use either the positive or negative pressure check (depending on which test works best for them) specified in Appendix B-1 of the Respiratory Protection Standard.
- All employees shall be permitted to leave the work area to go to the locker room to maintain their respirator for the following reasons: to clean their respirator if the respirator is impeding their ability to work, change filters or cartridges, replace parts, or to inspect respirator if it stops functioning as intended. Employees should notify their supervisor before leaving the area.
- Employees are not permitted to wear tight-fitting respirators if they have any condition, such as facial scars, facial hair, or missing dentures, that prevents them from achieving a good seal. Employees are not permitted to wear headphones, jewelry, or other articles that may interfere with the facepiece-to-face seal.

Emergency Procedures:

The following work areas have been identified as having foreseeable emergencies:

Spray Booth Cleaning Area - spill of hazardous waste

Dip Coat Area - malfunction of ventilation system, leak in supply system

Coatings Storage Area - spill or leak of hazardous substances

When the alarm sounds, employees in the affected department must immediately don their emergency escape respirator, shut down their process equipment, and exit the work area. All other employees must immediately evacuate the building. XYZ Seating's Emergency Action Plan describes these procedures (including proper evacuation routes and rally points) in greater detail.

Emergency escape respirators are located:

Locker #1 in the Spray Booth Area

Storage cabinet #3 in Dip Coat/Drying Area

Locker #4 in the Coatings Storage Area

Respiratory protection in these instances is for escape purposes only. XYZ Seating

employees are not trained as emergency responders, and are not authorized to act in such a manner.

Respirator Malfunction

1. APR Respirator Malfunction:

For any malfunction of an APR (e.g., such as breakthrough, facepiece leakage, or

improperly working valve), the respirator wearer should inform his or her supervisor that the respirator no longer functions as intended, and go to the designated safe area to maintain the respirator. The supervisor must ensure that the employee receives the needed parts to repair the respirator, or is provided with a new respirator.

All workers wearing atmosphere-supplying respirators will work with a buddy. Buddies shall assist workers who experience an SAR malfunction as follows:

If a worker in the spray booth experiences a malfunction of an SAR, he or she should signal to the buddy that he or she has had a respirator malfunction. The buddy shall don an emergency escape respirator and aid the worker in immediately exiting the spray booth.

Workers cleaning wood pieces or assembled furniture in the Prep department will work with a buddy. If one of the workers experiences a respirator malfunction, he/she shall signal this to their buddy. The buddy must immediately stop what he or she is doing to escort the employee to the Prep staging area where the employee can safely remove the SAR.

IDLH Procedures

The Program Administrator has identified the following area as presenting the potential for IDLH conditions:

Dip Coat Tank Cleaning:

Maintenance workers will be periodically required to enter the dip tank to perform scheduled or unscheduled maintenance. In such cases, workers will follow the permit required confined space entry procedures specified in the XYZ Seating

Confined Space Program. As specified in these procedures, the Program Administrator has determined that workers entering this area shall wear a pressure demand SAR. In addition, an appropriately trained and equipped standby person shall remain outside the dip tank and maintain constant voice and visual communication with the worker. In the event of an emergency requiring the standby person to enter the IDLH environment, the standby person shall immediately notify the Program Administrator and will proceed with rescue operations in accordance with rescue procedures outlined in the XYZ Seating Confined Space Program.

Air Quality

For supplied-air respirators, only Grade D breathing air shall be used in the cylinders. The Program Administrator will coordinate deliveries of compressed air with the company's vendor, Compressed Air Inc., and require Compressed Air Inc. to certify that the air in the cylinders meets the specifications of Grade D breathing air.

The Program Administrator will maintain a minimum air supply of one fully charged replacement cylinder for each SAR unit. In addition, cylinders may be recharged as necessary from the breathing air cascade system located near the respirator storage area. The air for this system is provided by XYZ Seating's supplier, and deliveries of new air are coordinated by the Program Administrator.

Cleaning, Maintenance, Change Schedules and Storage

Cleaning

Respirators are to be regularly cleaned and disinfected at the designated respirator cleaning station located in the employee locker room.

Respirators issued for the exclusive use of an employee shall be cleaned as often as necessary, but at least once a day for workers in the Prep and Assembly departments.

Atmosphere supplying and emergency use respirators are to be cleaned and disinfected after each use.

The following procedure is to be used when cleaning and disinfecting respirators:

- Disassemble respirator, removing any filters, canisters, or cartridges.
- Wash the facepiece and associated parts in a mild detergent with warm water. Do not use organic solvents.
- Rinse completely in clean warm water.
- Wipe the respirator with disinfectant wipes (70% Isopropyl Alcohol) to kill germs.
- Air dry in a clean area.
- Reassemble the respirator and replace any defective parts.
- Place in a clean, dry plastic bag or other air tight container.

Note: The Program Administrator will ensure an adequate supply of appropriate cleaning and disinfection material at the cleaning station. If supplies are low, employees should contact their supervisor, who will inform the Program Administrator.

Maintenance

Respirators are to be properly maintained at all times in order to ensure that they function properly and adequately protect the employee. Maintenance involves a thorough visual inspection for cleanliness and defects. Worn or deteriorated parts will be replaced prior to use. No components will be replaced or repairs made beyond those recommended by the manufacturer. Repairs to regulators or alarms of atmosphere-supplying respirators will be conducted by the manufacturer.

The following checklist will be used when inspecting respirators:

- Facepiece:

cracks, tears, or holes

facemask distortion

cracked or loose lenses/faceshield

- Headstraps:

breaks or tears

broken buckles

- Valves:

residue or dirt

cracks or tears in valve material

- Filters/Cartridges:

approval designation

gaskets

cracks or dents in housing

proper cartridge for hazard

- Air Supply Systems:

breathing air quality/grade

condition of supply hoses

hose connections

settings on regulators and valves

Employees are permitted to leave their work area to perform limited maintenance on their respirator in a designated area that is free of respiratory hazards. Situations when this is permitted include to wash their face and respirator facepiece to prevent any eye or skin irritation, to replace the filter, cartridge or canister, and if they detect vapor or gas breakthrough or leakage in the facepiece or if they detect any other damage to the respirator or its components.

Change Schedules

Employees wearing APRs or PAPRs with P100 filters for protection against wood dust and other particulates shall change the cartridges on their respirators when they first begin to experience difficulty breathing (i.e., resistance) while wearing their masks.

Based on discussions with our respirator distributor about XYZ Seating's workplace exposure conditions, employees voluntarily wearing APRs with organic vapor cartridges shall change the cartridges on their respirators at the end of each work week to ensure the continued effectiveness of the respirators.

Storage

Respirators must be stored in a clean, dry area, and in accordance with the manufacturer's recommendations. Each employee will clean and inspect their own air-purifying respirator in accordance with the provisions of this program and will store their respirator in a plastic bag in their own locker. Each employee will have his/her name on the bag and that bag will only be used to store that employee's respirator.

Atmosphere supplying respirators will be stored in the storage cabinet outside of the Program Administrator's office.

The Program Administrator will store XYZ's supply of respirators and respirator components in their original manufacturer's packaging in the equipment storage room.

Defective Respirators

Respirators that are defective or have defective parts shall be taken out of service immediately. If, during an inspection, an employee discovers a defect in a respirator, he/she is to bring the defect to the attention of his or her supervisor. Supervisors will give all defective respirators to the Program Administrator. The Program Administrator will decide whether to:

- Temporarily take the respirator out of service until it can be repaired.
- Perform a simple fix on the spot such as replacing a headstrap.
- Dispose of the respirator due to an irreparable problem or defect.

When a respirator is taken out of service for an extended period of time, the respirator will be tagged out of service, and the employee will be given a replacement of similar make, model, and size. All tagged out respirators will be kept in the storage cabinet inside the Program Administrator's office.

Training

The Program Administrator will provide training to respirator users and their supervisors on the contents of the XYZ Seating Respiratory Protection Program and their responsibilities under it, and on the OSHA Respiratory Protection standard. Workers will be trained prior to using a respirator in the workplace. Supervisors will also be trained prior to using a respirator in the workplace or prior to supervising employees that must wear respirators.

The training course will cover the following topics:

- the XYZ Seating Respiratory Protection Program
- the OSHA Respiratory Protection standard
- respiratory hazards encountered at XYZ Seating and their health effects
- proper selection and use of respirators
- limitations of respirators
- respirator donning and user seal (fit) checks
- fit testing
- emergency use procedures
- maintenance and storage
- medical signs and symptoms limiting the effective use of respirators

Employees will be retrained annually or as needed (e.g., if they change departments and need to use a different respirator). Employees must demonstrate their understanding of the topics covered in the training through hands-on exercises and a written test. Respirator training will be documented by the Program Administrator and the documentation will include the type, model, and size of respirator for which each employee has been trained and fit tested.

5.0 Program Evaluation

The Program Administrator will conduct periodic evaluations of the workplace to ensure that the provisions of this program are being implemented. The evaluations will include regular consultations with employees who use respirators and their supervisors, site inspections, air monitoring and a review of records.

Problems identified will be noted in an inspection log and addressed by the Program Administrator. These findings will be reported to XYZ Seating management, and the report will list plans to correct deficiencies in the respirator program and target dates for the implementation of those corrections.

6.0 Documentation and Recordkeeping

A written copy of this program and the OSHA standard is kept in the Program Administrator's office and is available to all employees who wish to review it.

Also maintained in the Program Administrator's office are copies of training and fit test records. These records will be updated as new employees are trained, as existing employees receive refresher training, and as new fit tests are conducted.

The Program Administrator will also maintain copies of the medical records for all employees covered under the respirator program. The completed medical questionnaire and the physician's documented findings are confidential and will remain at ABC Medical Clinic. The company will only retain the physician's written recommendation regarding each employee's ability to wear a respirator.

RESPIRATORY PROTECTION PROGRAM CHECKLIST

Check to ensure that your facility has:

- A written respiratory protection program that is specific to your workplace and covers the following:

- Procedures for selecting respirators.
- Medical evaluations of employees required to wear respirators.
- Fit testing procedures.
- Routine use procedures and emergency respirator use procedures.
- Procedures and schedules for cleaning, disinfecting, storing, inspecting, repairing, discarding, and maintaining respirators.
- Procedures for ensuring adequate air quality for supplied air respirators.
- Training in respiratory hazards.
- Training in proper use and maintenance of respirators.
- Program evaluation procedures.
- Procedures for ensuring that workers who voluntarily wear respirators (excluding filtering facepieces) comply with the medical evaluation, and cleaning, storing and maintenance requirements of the standard.
- A designated program administrator who is qualified to administer the program.
- Updated the written program as necessary to account for changes in the workplace affecting respirator use.
- Provided equipment, training, and medical evaluations at no cost to employees.

RESPIRATOR SELECTION

CHECKLIST

Check that at your facility:

- Respiratory hazards in your workplace have been identified and evaluated.
 - Employee exposures that have not been, or cannot be, evaluated are considered IDLH.
 - Respirators are NIOSH certified, and used under the conditions of certification.
 - Respirators are selected based on the workplace hazards evaluated and workplace and user factors affecting respirator performance and reliability.
 - A sufficient number of respirator sizes and models are provided to be acceptable and correctly fit the users.
-
- For IDLH atmospheres:
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- Full facepiece pressure demand SARs with auxiliary SCBA unit or full facepiece pressure demand SCBAs, with a minimum service life of 30 minutes, are provided.
 - Respirators used for escape only are NIOSH certified for the atmosphere in which they will be used.
 - Oxygen deficient atmospheres are considered IDLH.
-
- For Non-IDLH atmospheres:
-
- Respirators selected are appropriate for the chemical state and physical form of the contaminant.
 - Air-purifying respirators used for protection against gases and vapors are equipped with ESLIs or a change schedule has been implemented.
 - Air-purifying respirators used for protection against particulates are equipped with NIOSH-certified HEPA filters or other filters certified by NIOSH for particulates under 42 CFR part 84.

PROPER USE OF RESPIRATORS

CHECKLIST

Check your facility to be certain that:

- Workers using tight-fitting respirators have no conditions, such as facial hair, that would interfere with a face-to-facepiece seal or valve function.
- Workers wear corrective glasses, goggles, or other protective equipment in a manner that does not interfere with the face-to-facepiece seal or valve function.
- Workers perform user seal checks prior to each use of a tight-fitting respirator.
- There are procedures for conducting ongoing surveillance of the work area for conditions that affect respirator effectiveness, and that, when such conditions exist, you take steps to address those situations.
- Employees are permitted to leave their work area to conduct respirator maintenance, such as washing the facepiece, or to replace respirator parts.

- Employees do not return to their work area until their respirator has been repaired or replaced in the event of breakthrough, a leak in the facepiece, or a change in breathing resistance.
- There are procedures for respirator use in IDLH atmospheres and during interior structural firefighting to ensure that: the appropriate number of standby personnel are deployed; standby personnel and employees in the IDLH environment maintain communication; standby personnel are properly trained, equipped, and prepared; you will be notified when standby personnel enter an IDLH atmosphere; and you will respond to this notification.
- Standby personnel are equipped with a pressure demand or other positive pressure SCBA, or a positive pressure supplied air respirator with an escape SCBA, and appropriate retrieval equipment or other means for rescue.
- Procedures for interior structural firefighting require that: at least two employees enter the IDLH atmosphere and remain in contact with one another at all times; at least two standby personnel are used; and all firefighting employees use SCBAs.

FIT TESTING CHECKLIST

Check that at your facility:

- Employees who are using tight fitting respirator facepieces have passed an appropriate fit test prior to being required to use a respirator.
- Fit testing is conducted with the same make, model, and size that the employee will be expected to use at the worksite.
- Fit tests are conducted annually and when different respirator facepieces are to be used.
- Provisions are made to conduct additional tests in the event of physical changes in the employee that may affect respirator fit.
- Employees are given the opportunity to select a different respirator facepiece, and be retested, if their respirator fit is unacceptable to them.
- Fit tests are administered using OSHA-accepted QNFT or QLFT protocols.
- QLFT may be used to fit test PAPRs, SCBAs, &/or negative pressure APRs that must achieve a fit factor of 100 or less.
- QNFT is used in all situations where a negative pressure respirator is intended to protect workers from contaminant concentrations greater than 10 times the PEL.
- When QNFT is used to fit negative pressure respirators, a minimum fit factor of 100 is achieved for tight-fitting half-facepieces and 500 for full-facepieces.
- For tight-fitting atmosphere-supplying respirators and powered air-purifying respirators:
 - Fit tests are conducted in the negative pressure mode.
- QLFT is achieved by temporarily converting the facepiece into a negative pressure respirator with appropriate filters, or by using an identical negative pressure APR
- QNFT is achieved by modifying the facepiece to allow for sampling inside the mask midway between the nose and mouth. The facepiece is restored to its NIOSH approved configuration before being used in the workplace.

MEDICAL EVALUATION CHECKLIST

Check that at your facility:

- All employees have been evaluated to determine their ability to wear a respirator prior to being fit tested for or wearing a respirator for the first time in your workplace.
- A physician or other licensed health care professional (PLHCP) has been identified to perform the medical evaluations.
- The medical evaluations obtain the information requested in Sections 1 and 2, Part A of Appendix C of the standard, 29 CFR 1910.134.
- Employees are provided follow-up medical exams if they answer positively to any of questions 1 through 8 in Section 2, Part A of Appendix C, or if their initial medical evaluation reveals that a follow-up exam is needed.
- Medical evaluations are administered confidentially during normal work hours, and in a manner that is understandable to employees.
- Employees are provided the opportunity to discuss the medical evaluation results with the PLHCP.
- The following supplemental information is provided to the PLHCP before he or she makes a decision about respirator use:
 - Type and weight of the respirator.
 - Duration and frequency of respirator use.
 - Expected physical work effort.
 - Additional protective clothing to be worn.
 - Potential temperature and humidity extremes.
- Written copies of the respiratory protection program and the Respiratory Protection standard.
- Written recommendations are obtained from the PLHCP regarding each employee's ability to wear a respirator, and that the PLHCP has given the employee a copy of these recommendations.
- Employees who are medically unable to wear a negative pressure respirator are provided with a powered air-purifying respirator (PAPR) if they are found by the PLHCP to be medically able to use a PAPR.
- Employees are given additional medical evaluations when:
 - Employee reports symptoms related to their ability to use a respirator.
- The PLHCP, respiratory protection program administrator, or supervisor determines that a medical reevaluation is necessary.
- Information from the respiratory protection program suggests a need for reevaluation.

RESPIRATOR MAINTENANCE & CARE CHECKLIST

Check to make sure that your facility has met the following requirements:

Cleaning and Disinfecting

- Respirators are provided that are clean, sanitary, and in good working order.
- Respirators are cleaned and disinfected using the procedures specified in Appendix B-2 of the standard.
- Respirators are cleaned and disinfected:
 - As often as necessary when issued for the exclusive use of one employee.
 - Before being worn by different individuals.
 - After each use for emergency use respirators.
 - After each use for respirators used for fit testing and training.

Storage

- Respirators are stored to protect them from damage from the elements, and from becoming deformed.
- Emergency respirators are stored:
 - To be accessible to the work area.
 - In compartments marked as such.
 - In accordance with manufacturer's recommendations.

Inspections

- Routine-use respirators are inspected before each use and during cleaning.
- SCBAs and emergency respirators are inspected monthly and checked for proper function before and after each use.
- Emergency escape-only respirators are inspected before being carried into the workplace for use.
- Inspections include:
 - Check of respirator function
 - Tightness of connections
 - Condition of the facepiece, head straps, valves, and cartridges.
 - Condition of elastomeric parts.
- For SCBAs, inspection includes checking that cylinders are fully charged, and that regulators and warning devices function properly.
- Emergency use respirators are certified by documenting the inspection, and by tagging the information either to the respirator or its compartment, or storing it with inspection reports.

Repairs

- Respirators that have failed inspection are taken out of service .
- Repairs are made only by trained personnel.
- Only NIOSH-approved parts are used.
- Reducing and admission valves, regulators and alarms are adjusted or repaired only by the manufacturer or a technician trained by the manufacturer.

BREATHING AIR QUALITY AND USE CHECKLIST

Check that at your facility:

General

- Compressed breathing air meets the requirements for Grade D breathing air.
- Compressed oxygen is not used in respirators that have previously used compressed air.
- Oxygen concentrations greater than 23.5 percent are used only in equipment designed for oxygen service or distribution.
- Breathing air couplings are incompatible with outlets for other gas systems.
- Breathing gas containers are marked with appropriate NIOSH certification.

Breathing Air Cylinders

- Cylinders are tested and maintained according to DOT 49 CFR Part 173 and 178.
- A certificate of analysis for breathing air has been obtained from the supplier.
- Moisture content in the cylinder does not exceed a dew point of -50 °F at 1 atmosphere pressure.

Compressors

- Are constructed and situated to prevent contaminated air from getting into the system.
- Are set up to minimize the moisture content.
- Are equipped with in-line air-purifying sorbent beds and/or filters that are maintained or replaced following manufacturer's instructions.
- Are tagged with information on the most recent change date of the filter and an authorizing signature.
- Carbon monoxide does not exceed 10 ppm in the breathing air from compressors that are not oil-lubricated.
- High-temperature and carbon monoxide alarms are used on oil-lubricated compressors, or that the air is monitored often enough to ensure that carbon monoxide does not exceed 10 ppm if only a high-temperature alarm is used.

TRAINING AND INFORMATION CHECKLIST

Check that at your facility:

- Employees can demonstrate knowledge of:
- Why the respirator is necessary and the consequences of improper fit, use, or maintenance.
- Limitations and capabilities of the respirator.
- How to effectively use the respirator in emergency situations.
- How to inspect, put on, remove, use, and check the seals of the respirator.
- Maintenance and storage procedures.

The general requirements of the respirator standard.

- Training is understandable to employees.
- Training is provided prior to employee use of a respirator.
- Retraining is provided:
- Annually.
- Upon changes in workplace conditions that affect respirator use.
- Whenever retraining appears necessary to ensure safe respirator use.
- Appendix D of the standard is provided to voluntary users.

PROGRAM EVALUATION CHECKLIST

Check that at your facility:

- Workplace evaluations are being conducted as necessary to ensure that the written respiratory protection program is being effectively implemented.
- Employees required to wear respirators are being regularly consulted to assess the employees' views and to identify problems with respirator fit, selection, use and maintenance.
- Any problems identified during assessments are corrected.

RECORDKEEPING CHECKLIST

Check that at your facility:

- Records of medical evaluations have been retained.
- Current fit testing records have been retained.
- A copy of the current respiratory protection program has been retained.
- Access to these records is provided to affected employees.

Table 1: Acceptable Fit-Testing Methods	QLFT	QNFT
Half-Face, Negative Pressure, APR (<100 fit factor)	Yes	Yes
Full-Face, Negative Pressure, APR (<100 fit factor) used in atmospheres up to 10 times the PEL	Yes	Yes
Full-Face, Negative Pressure, APR (>100 fit factor)	No	Yes
PAPR	Yes	Yes
Supplied-Air Respirators (SAR), or SCBA used in Negative Pressure (Demand Mode) (>100 fit factor)	No	Yes
Supplied-Air Respirators (SAR), or SCBA used in Positive Pressure (Pressure Demand Mode)	Yes	Yes
SCBA - Structural Fire Fighting, Positive Pressure	Yes	Yes
SCBA/SAR - IDLH, Positive Pressure	Yes	Yes
Mouthbit Respirators	Fit-Testing Not	
Loose-fitting Respirators (e.g., hoods, helmets)	Required.	